REMARKS

Claims 1-49, 55, 57-61, 64-68, 73 and 77-83 are pending. By this Amendment, claim 76 is canceled, and the specification and claims 1, 6, 10, 16, 20, 26, 30, 36, 40, 44-46, 55, 58-61, 64, 73, 77, 81 and 82 have been amended. In addition, a Request for Approval of Drawing Corrections is presented herein which requests approval for corrections to marked-up Figs. 4 and 20, attached hereto.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached Appendix is captioned **"Version with markings to show changes made"**.

The drawings were objected to because Fig. 4 appears to show a position on the handle bar that is inconsistent with the snowmobile position shown in Figs. 2 and 3. This objection is respectfully traversed.

Attached hereto is a Request for Approval of Drawing Corrections to eliminate the 90° steering position previously shown therein. This obviously exaggerated position was shown for the purposes of illustration so that the reader could easily see that the rider's knees do not interfere with turning of the handle bars. After elimination of the 90° position, what is left is the more realistic and actual turning radius of the handle bars, which is consistent with that shown in Figs. 2 and 3. In fact, the original specification (page 14, third full paragraph) indicates that "...when the rider turns steering device 132 to its maximum positions, the handle bars sweep out handle bar space 176." In Fig. 4, space 176 is indicated to be the space between the two maximum positions shown. Moreover, the windshield in Fig. 4 has been removed so as to more easily demonstrate the fact that the handle bars do not interfere with the knees of the rider. Withdrawal of the objection is respectfully requested.

Claims 1-49, 55, 57-61, 64-68, 73, and 76-83 were rejected under 35 U.S.C. §112, first paragraph. This rejection stems from the perceived inconsistency between Figs. 2 and 3 and Fig. 4. The proposed drawing correction to FIG. 4 as well as the explanation above should obviate this rejection. Moreover, the "steering device" as recited in the claims encompasses an entire class of steering devices, inclusive of a steering wheel, the handlebars illustrated in the application Figures or a yolk of the type used in aircraft. See page 9, last full paragraph. Accordingly, even if an embodiment with handle bars is not enabled by the

present specification, which it is, embodiments with a steering wheel or an aircraft-type yolk are enabled because they would not interfere with the windshield.

Withdrawal of the rejection is respectfully requested.

Claims 1-49, 55, 57, 58, 61, 64-68, 73 and 76-83 were rejected under 35 U.S.C. §101. This rejection is respectfully traversed.

All the claims in this application are directed to a snowmobile including, for example, a frame, an engine, a drive track, skis, a seat and for a steering device. This is statutory subject matter under 35 U.S.C. §101. Moreover, the various elements of the snowmobiles are defined in terms of how they are arranged so that a rider may assume a certain position. For example, claim 1 specifies a straddle seat disposed on the frame behind the engine, and a seat dimensioned to support a standard rider with a center of gravity in a standing position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain. As another example, claim 40 specifies that a steering device is disposed on the frame and spaced forward of the seat such that when the rider grasps the steering device in the standing position, the rider's torso is tilted toward the steering device and the rider's arms extend towards the steering device with the rider's elbows substantially over the rider's feet. It is the claim's structural relationship between these various elements that define the snowmobile, not the other way around, i.e., the rider does not define the structure of the snowmobile.

For these reasons, and for those outlined the Amendment filed on January 12, 2001, withdrawal of the rejection is respectfully requested.

Claims 1-49, 55, 57, 58, 61, 64-68, 73 and 76-83 were rejected under 35 U.S.C. §112, second paragraph. This rejection is respectfully traversed.

By this Amendment, each independent claim dealing with a standard rider has been further defined to specify that the standard rider has dimensions and weight of a 50-percentile human male. The weight and dimensions of a 50-percentile human male are provided with an incredible amount of detail in Figs. 19 and 20. In addition, see page 9, second full paragraph of the original specification. This paragraph has been amended to specify that the 50-percentile in the United States human male has a weight of 174.8 pounds and dimensions as shown in Figs. 19 and 20. A weight of 174.8 pounds is supported in U.S. Provisional Application Serial No. 60/167,614, which is relied upon for priority and is incorporated by reference in its entirety on page 1 of the present application. A copy of the provisional

application is enclosed. Figure 20 has been amended to include dimensions from the provisional application.

Accordingly, the scope of each of the claims can be determined with an incredible amount of detail with respect to the standard rider. For purposes of measuring infringement, it is the 50-percentile human male that forms the basis whether or not infringement occurs. Stiffness of the joints and age of the rider are irrelevant compared to what Applicants claim. For example, the age and stiffness of the joints of a rider will not affect where the center of gravity of the rider is located assuming that rider is positioned in the standard position and has the specified dimensions and weight of the 50-percentile human male.

That is not to say that a snowmobile with a non-standard rider cannot infringe Applicants' claims. For determining infringement of Applicants' claims, one need only place a 50-percentile human male on any given snowmobile and measure the rider's positioning against what is recited in the claims.

Withdrawal of the rejection is respectfully requested.

Claims 40, 41, 44-49, 73, 76, and 81-83 were rejected under 35 U.S.C. §102(b) over Yasui et al. This rejection is respectfully traversed.

First, because the portrayed rider in Yasui et al. is in a cramped position, the steering device is disposed such that the rider's torso is substantially erect, rather than being tilted toward the steering device, as claimed. Also, Yasui's steering device is disposed such that the elbows are substantially over the seating position, rather than substantially over the rider's feet. Yasui's snowmobile is miniaturized in size and its seat, steering position and footrests are not designed, dimensioned and configured with respect to one another such that the rider assumes the position specified in claim 40.

Further, even assuming that the rider could slide back in Yasui to arrive at the subject matter of claim 4, the Yasui rider would not longer be positioned in the standard riding position, as claimed. Yasui's standard riding position is that position shown in Fig. 1. For example, if Yasui's rider were to slide rearwardly on the seat, the rider would no longer be able to move his or her leg between the starter and the footrest, as shown in Fig. 1. In other words, sliding of the Yasui rider rearwardly of the Yasui seat might arguably meet some features of the claims but other features of the claims would no longer be satisfied. Moreover, the Yasui snowmobile would not have the seat, footrest and handle bars that are positioned as specified in Applicants' claims.

Finally, Yasui does not teach: 1) that a distance between vertical lines passing through the steering position and the seat position is between 40-90 cm, as set forth in claim 44; or 2) right and left toe-holds above the rider's toes in a vertical plane, as recited in claim 73.

Withdrawal of the rejection is respectfully requested.

Claim 55 was rejected under 35 U.S.C. §102(b) over Marier. This rejection is respectfully traversed.

Claim 55 recites a snowmobile including a frame, a seat and a steering device, two skis and a windshield. A line between the steering position and the seat position forms an angle $\mu$ with a line between the seat and the top of the windshield that lies between 10 and 20°.

In the Office Action, it is specified that Marier shows a corresponding angle of "approximately 10°." However, even in a best case scenario, the angle of Marier is less than 10°, as shown in the attached copy of Fig. 1 of Marier. There is no reason to increase Marier's angle to meet Applicants' claim.

Withdrawal of the rejection is respectfully requested.

Claims 42 and 43 were rejected under 35 U.S.C. §103(a) over Yasui. These claims depend from claim 40 and are patentable by virtue of that dependency. In addition, Applicants take exception with the Examiner's assertion that it would have been obvious for a rider who was taller than the rider shown to sit farther back in the seat. Claim 40 specifies a standard rider, and that standard rider is a 50-percentile human male. Thus, claims 42 and 43 also relate to the 50-percentile standard male and the subject matter of these claims cannot be met by changing the size of the rider.

Withdrawal of the rejection of claims 42 and 43 is respectfully requested.

Claims 59-61 were rejected under 35 U.S.C. §102(b) over Hirose. This rejection is respectfully traversed.

With respect to claim 59, Hirose does not teach that a forward-most drive track axle is disposed on the frame forward of the pair of footrests. All of the embodiments of Hirose, the forward most drive track axle is positioned rearward of the pair of footrests. There is no motivation to reverse Hirose's orientation to arrive at Applicants' claimed subject matter.

With respect to claim 60, Hirose does not teach that the forward-most axle is positioned forward of the center gravity. It is clear from reviewing each of the figures of

Hirose that the center of gravity would always be in front of the forward-most axle of the drive track, rather than the other way around.

Respect to claim 61, Hirose does not teach that the steering device and the forward-most drive axle are disposed on the frame forward of the center of gravity with a rider in the standard position. As mentioned, Hirose's forward most drive axle will always be behind the center of gravity.

Withdrawal of the rejection is respectfully requested.

Claim 73 was rejected under 35 U.S.C. §103(a) over Trautwein. This rejection is respectfully traversed.

By this Amendment, claim 73 specifies that the forward portion of each sideboard is disposed at an angle horizontal that is -5°. Trautwein does not teach this subject matter. In addition, Trautwein does not teach that left and right toe holds are disposed respectfully above the rider's toes in a vertical plane for allowing the rider to releasably secure himself to the snowmobile. Trautwein discloses nothing for holding the toes in place.

Withdrawal of the rejection is respectfully requested.

In view of the above amendments and remarks, Applicants respectfully submit that all the claims are patentable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Pillsbury Winthrop LLP

By: _____

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PTB/jck
Enclosures:
Appendix
Figure 1 of Marier
U.S. Provisional Application 60/167,614
Request for Approval of Drawing Corrections

1600 Tysons Boulevard
McLean, VA 22102
(703) 905-2000

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

Page 9, replace the paragraph at lines 9-21 with the following new paragraph:

When rider 126 is on snowmobile 110, the rider will be positioned on seat 128 so that he occupies seat position 130. Seat position 130 is the point at which the weight of the rider 126 is exerted on the seat 128. This point may vary from rider to rider, given changes in height and weight from one rider to another. In cases of difficulty, it may be determined by taking a 50-percentile United States human male (having a weight of 174.8 pounds and dimensions as shown in FIGS. 19 and 20), placing him on the snowmobile in the position shown in the Figures (*i.e.*, that approximate the position of a rider a few seconds after [staring] starting the vehicle, heading straight ahead on a flat terrain), and drawing a line from his shoulder through his hip. (For purposes of this discussion, a standard person is illustrated in FIGS. 19 and 20.) The intersection of that line with the seat may be considered to be the seat position 130. It will also be understood that seat 128 will be covered with an amount of foam or similar padding-type material and that the amount of that foam will vary from seat to seat. When the ride 126 sits upon the seat 128, his weight will cause the foam to compress and he will sink into the seat 128. Preferably, the seating position 130 is determined after this compression has occurred.

Page 14, replace the paragraph at lines 11-15 with the following new paragraph:

As shown in FIG. 4, when rider 126 turns steering device [32] 132 to its maximum positions, the handlebars sweep out a handlebar space 176. Because steering device 132 is positioned forward of the center of gravity of the vehicle 144, handlebar space 176 cannot intersect with the space occupied by rider 126. In other words, rider 126 will not normally hit his knees 148 with steering device 132 while riding snowmobile 110.

IN THE CLAIMS:

1. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a first center of gravity without the rider and a second center of gravity with the rider in the standard position, and

wherein a distance between a vertical line passing through the first center of gravity and a vertical line passing through the second center of gravity is between 0 cm and 14 cm.

6. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a first center of gravity without the rider and a second center of gravity with the rider in the standard position, and

wherein a line passing through the first center of gravity of the snowmobile and the second center of gravity forms an angle with horizontal that is between 35 and 90°.

10. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

a forward-most drive track axle disposed on the frame;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile; and

wherein a distance between a vertical line passing through the forward-most drive track axle and a vertical line passing through the center of gravity of the rider in the standard position is between 15 and 65 cm.

16. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

a forward-most drive track axle disposed on the frame;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider having a center of gravity in a standard position in which the standard

rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile; and

wherein a line passing through the forward-most drive track axle and the center of gravity of the rider in the standard position forms an angle with horizontal that is between 41 and 75°.

20. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support suitable for a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity without the rider, and

wherein a distance between a vertical line passing through the center of gravity of the snowmobile without the rider and a vertical line passing through the center of gravity of the rider in the standard position is between 5 and 55 cm.

26. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider having a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity without the rider, and

wherein a line passing through the center of gravity of the snowmobile without the rider and the center of gravity of the rider in the standard position forms an angle with horizontal that is between 39 and 79°.

30. (Twice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity with the rider, and

wherein a distance between a vertical line passing through the center of gravity of the snowmobile with the rider and a vertical line passing through the center of gravity of the rider in the standard position is between 0 and 50 cm.

36. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider having a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity with the rider, and

wherein a line passing through the center of gravity of the snowmobile with the rider in the standard position and the center of gravity of the rider in the standard position forms an angle with horizontal that is between 35 and 84°.

40. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame and spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the rider's torso is tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet;

two skis [attached to] disposed on the frame and operatively connected to the steering device for steering the snowmobile; and

a footrest disposed below each side of the seat, each said footrest being dimensioned with respect to the seat and the steering device to support the rider's foot thereon,

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the footrests define a footrest position,

wherein a line passing through the seat position and the steering position forms angle $\alpha$ with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle $\beta$ with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle $\gamma$ with the line passing through the steering position and the seat position, and

wherein angle $\alpha$ is between 63 and 152°, angle $\beta$ is between 16 and 84°, and angle $\gamma$ is between 11 and 42°.

44. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame and spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the rider's torso is tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet;

two skis [attached to] disposed on the frame and operatively connected to the steering device for steering the snowmobile; and

a footrest disposed below each side of the seat, each said footrest being dimensioned and configured with respect to the seat and the steering device to support the rider's foot thereon;

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the footrests define a footrest position,

wherein a line passing through the seat position and the steering position forms angle $\alpha$ with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle $\beta$ with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle $\gamma$ with the line passing through the steering position and the seat position,

wherein angle $\alpha$, angle $\beta$, and angle $\gamma$ satisfy the relationship $\alpha \geq \beta \geq \gamma$; and

wherein a distance between vertical lines passing through the steering position and the seat position is between 40-90 cm.

45. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame and spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the rider's torso is tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet;

two skis [attached to] disposed on the frame and operatively connected to the steering device for steering the snowmobile; and

a footrest disposed below each side of the seat, each said footrest being dimensioned and configured with respect to the seat and the steering device to support the rider's foot thereon;

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the footrests define a footrest position,

wherein a line passing through the seat position and the steering position forms angle $\alpha$ with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle $\gamma$ with the line passing through the steering position and the seat position, and

wherein $\alpha \approx 2.5\gamma$.

46. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat and the rider's thighs are substantially parallel to ground while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame and spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the standard rider's torso is tilted

toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet; and

two skis [attached to] disposed on the frame and operatively connected to the steering device for steering the snowmobile;

wherein the seat defines a seat position and the steering device defines a steering position for the standard rider in the standard position, and

wherein a line passing through the steering position and the seat position forms an angle $\phi$ with horizontal that is between 15 and 51°.

55. (Thrice Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed forward of the seat;

two skis [attached to] disposed on the frame and operatively connected to the steering shaft for steering the snowmobile; and

a windshield disposed forward of the steering device, the windshield having a top;

wherein the seat defines a seat position and the steering device defines a steering position for the standard rider in the standard position, and

wherein a line between the steering position and the seat position forms an angle $\mu$ with a line between the seat position and the top of the windshield that lies between 10° and 20°.

58. (Thrice Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed forward of the seat;

two skis [attached to] disposed on the frame and operatively connected to the steering device for steering the snowmobile; and

a windshield disposed forward of the seat, the windshield having a top;

wherein, when in motion, the windshield defines a laminar flow region of moving air that extends upwardly and rearwardly from the top thereof, and

wherein, when seated in the seat and when grasping the steering device in the standard position, the rider's head is positioned within the laminar flow region.

59. (Thrice Amended) A snowmobile, comprising:

a frame including a pair of footrests;

a straddle seat disposed on the frame;

an engine disposed on the frame in front of the seat;

two skis [attached to] disposed on the frame;

a forward-most drive track axle disposed on the frame forward of the pair of footrests; and

a steering device disposed on the frame forward of the forward-most drive track axle, the steering device being operatively connected to the two skis for steering the snowmobile.

60. (Thrice Amended) A snowmobile, comprising:

a frame having a forward-most drive track axle disposed thereon;

a straddle seat disposed on the frame;

an engine disposed on the frame in front of the seat;

two skis [attached to] disposed on the frame; and

a steering device disposed on the frame and operatively connected to the two skis for steering the snowmobile;

wherein the snowmobile has a center of gravity without a rider and the steering device is disposed on the frame forward of the center of gravity, and wherein the forward-most axle is positioned forward of the center of gravity.

61. (Thrice Amended) A snowmobile, comprising:

a frame having a forward-most drive axle mounted thereon;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

two skis [attached to] disposed on the frame; and

a steering device disposed on the frame and operatively connected to the two skis for steering the snowmobile;

wherein the snowmobile has a center of gravity with a rider in the standard position and the steering device [is] and the forward-most drive axle are disposed on the frame forward of the center of gravity.

64. (Thrice Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard seat position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

two skis [attached to] disposed on the frame; and

a steering device disposed on the frame and forward of the seat defining a steering position for the standard rider in the standard seat position, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein a distance between vertical lines passing through the steering position and the standard seat position is between 40 and 90 cm.

73. (Thrice Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame;

an engine disposed on the frame in front of the seat;

two skis [attached to] disposed on the frame;

a steering device disposed on the frame and operatively connected to the two skis for steering the snowmobile; and

right and left sideboards extending laterally from the frame below the seat on either side thereof, each of the sideboards having a forward portion suitable for placement of a rider's foot thereon, the forward portion of each sideboard disposed at an angle $\Delta$ with horizontal that is [between $0^{\circ}$ and] $-5^{\circ}$; and

right and left toe-holds disposed respectively above the rider's toes in a vertical plane for allowing the rider to releasably secure himself to the snowmobile.

77. (Thrice Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a drive track operatively coupled to the engine, the drive track including a belt entrained about at least two axles, including a forward-most axle;

two skis [attached to] disposed on the frame;

a steering device disposed on the frame forward of the seat and operatively connected to the two skis for steering the snowmobile; and

right and left sideboards extending laterally from the frame below the seat on either side thereof, each of the sideboards having a forward portion suitable for placement of a rider's foot thereon,

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position forward of the forward-most axle of the drive track, and the forward portions of the sideboards define a footrest position,

wherein a line passing through the seat position and the steering position forms angle $\alpha$ with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle $\beta$ with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle $\gamma$ with the line passing through the steering position and the seat position, and

wherein angle $\alpha$ is between 63 and 152°, angle $\beta$ is between 16 and 84°, and angle $\gamma$ is between 11 and 42°.

81. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

two skis [attached to] disposed on the frame;

a steering device operatively connected to the two skis, the steering device being spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the standard rider's torso is tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet; and

a sideboard extending laterally from the frame below each side of the seat, each said sideboard having a forward portion dimensional and configured with respect to the seat and the steering device to support a rider's foot thereon,

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the forward portion of each said sideboard defines a footrest position,

wherein a line passing through the seat position and the steering position forms angle $\alpha$ with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle $\beta$ with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle $\gamma$ with the line passing through the steering position and the seat position, and

wherein angle $\alpha$, angle $\beta$, and angle $\gamma$ satisfy the relationship $\alpha \geq \beta \geq \gamma$.

82. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the

snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

two skis [attached to] disposed on the frame;

a steering device operatively connected to the two skis, the steering device being spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the standard rider's torso is slightly tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet; and

a sideboard extending laterally from each side of the frame below the seat, each said sideboard having a forward portion dimensioned and configured with respect to the seat and the steering device to support a rider's foot thereon,

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the forward portions of the sideboards define a footrest position,

wherein a line passing through the seat position and the steering position forms angle $\alpha$ with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle $\gamma$ with the line passing through the steering position and the seat position, and

wherein $\alpha \approx 2.5\gamma$.

Marier

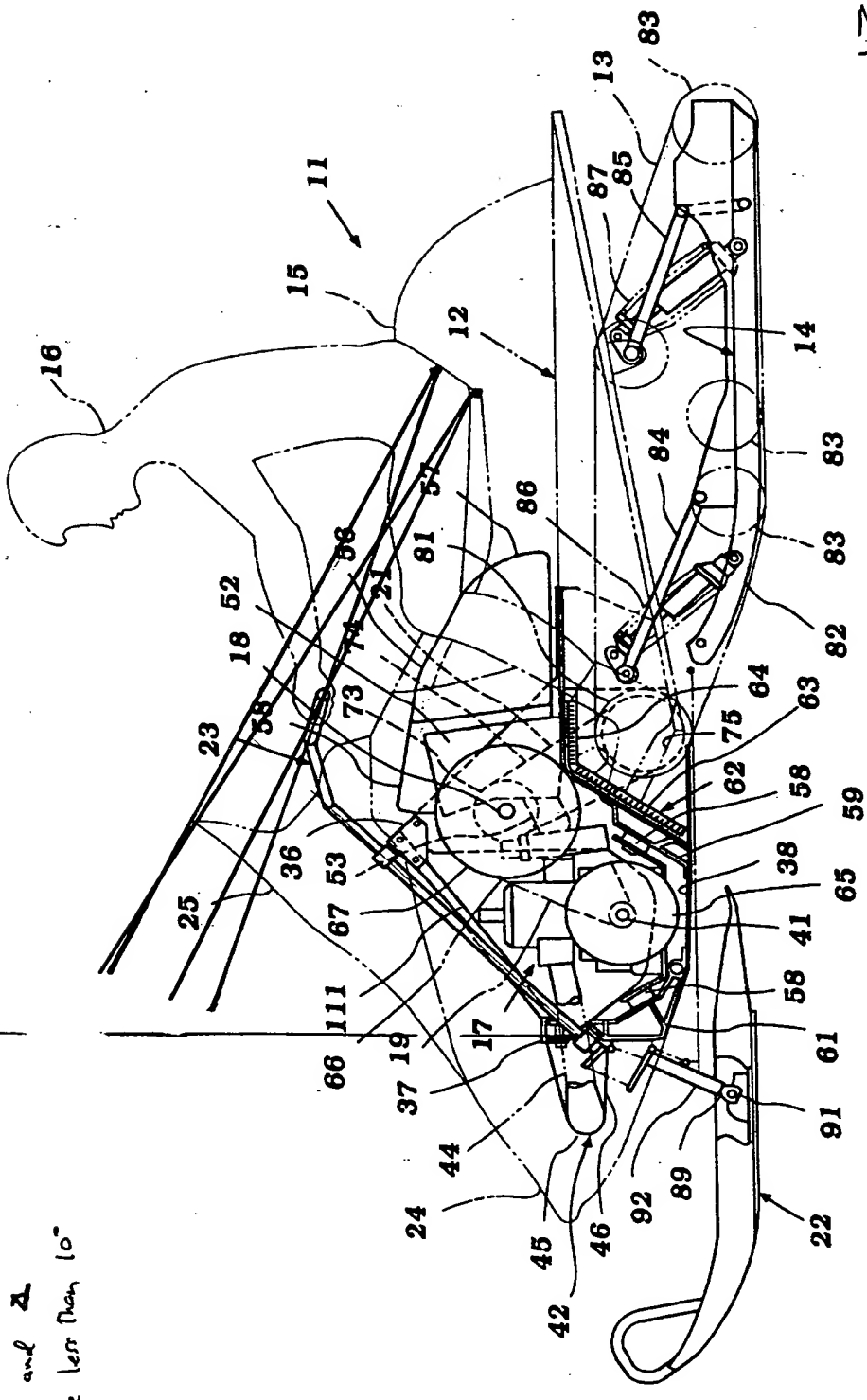


Figure 1

X and Z are less than 10°